

Matched SP3T RF Switch

20 - 1500 MHz

SW-163

V2.00

Features

- Internally Terminated
- Integral TTL Driver
- Low Loss – 0.9 dB Typical
- MIL-STD-883 Screening Available

Guaranteed Specifications*

(From – 55°C to + 85°C)

Frequency Range	20-1500 MHz	
Insertion Loss	20-1500 MHz	2.0 dB Max
	20-1000 MHz	1.5 dB Max
	30-500 MHz	1.2 dB Max
VSWR (All States)	20-1500 MHz	1.80:1 Max
	20-1000 MHz	1.50:1 Max
	30-500 MHz	1.25:1 Max
Isolation	20-1500 MHz	35 dB Min
	20-1000 MHz	40 dB Min
	20-500 MHz	50 dB Min

Operating Characteristics

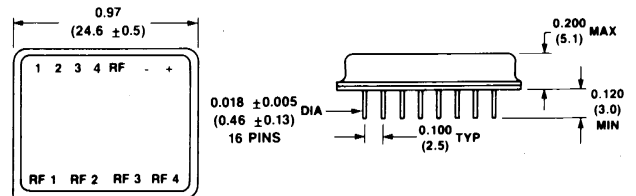
Impedance	50 Ohms Nominal	
Switching Characteristics		
t _{ON}	3.0 μS Typ	
t _{OFF}	1.5 μS Typ	
Transients (In-Band)	40 mV Typ	
Input Power	20-1500 MHz	+ 5 dBm Typ
for 1 dB Compression	50-1500 MHz	+ 15 dBm Typ
Intermodulation Intercept Point (for two-tone input power up to + 5 dBm)		
Second Order	(20-1500 MHz)	+ 55 dBm Typ
	(50-1500 MHz)	+ 70 dBm Typ
Third Order	(20-1500 MHz)	+ 25 dBm Typ
	(50-1500 MHz)	+ 40 dBm Typ
Bias Power	+ 9 to + 15 VDC @ 45 mA Max – 5 VDC ± 5% @ 25 mA Max (540 mW Typical)	

*All specifications apply when operated with bias voltages of + 12 VDC and – 5 VDC (± 5%) and 50 ohm impedance at all RF ports.

Ordering Information

Part Number	Package
SW-163 PIN	Dual Inline

DI-2



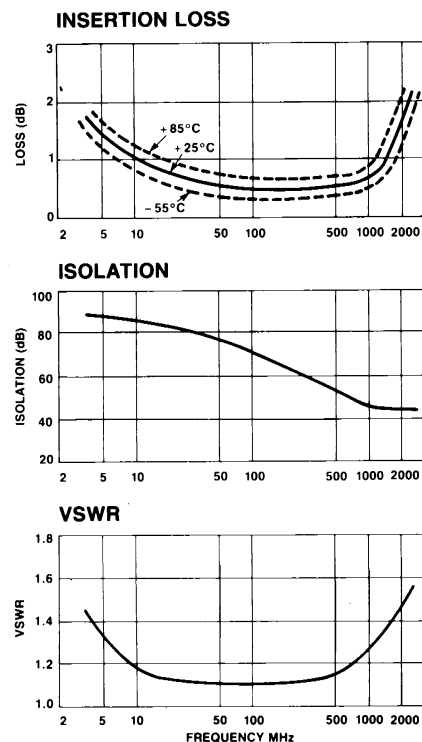
Dimensions in () are in mm.

Unless otherwise noted: ..xxx = ±0.010 (.xx = ±0.25)

.xx = ±0.02 (.x = ±0.5)

WEIGHT (APPROX.) 0.28 OUNCES 8 GRAMS

Typical Performance



Truth Table

TTL CONTROL INPUTS			CONDITION OF SWITCH		
"1" = TTL LOGIC HIGH			RF COMMON TO EACH RF PORT		
1	2	3	RF1	RF2	RF3
1	0	0	ON	OFF	OFF
0	1	0	OFF	ON	OFF
0	0	1	OFF	OFF	ON

M/A-COM, Inc.

Specifications Subject to Change Without Notice.

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